



## Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

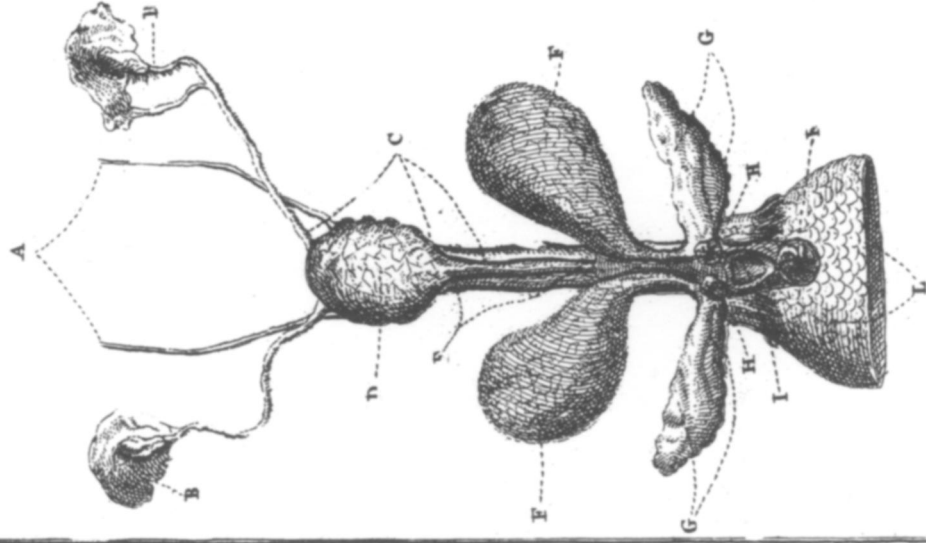
Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

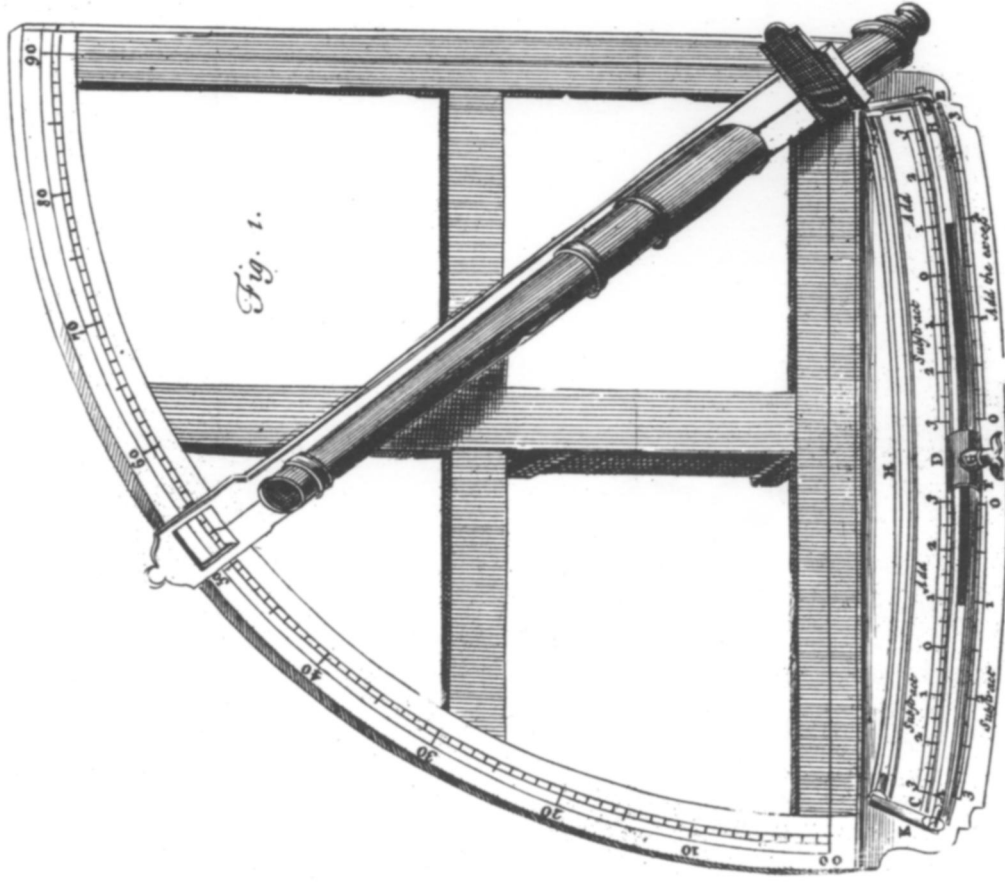
JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact [support@jstor.org](mailto:support@jstor.org).

Fig. 2.



C. M. ad nat. delin.

Fig. 1.



J. Mynde sc.

X. *Observations of the Variations of the Needle and Weather, made in a Voyage to Hudson's-Bay, in the Year 1731, by Capt. Christopher Middleton, communicated to the Royal Society by Mr. Benjamin Robins, F. R. S. with a Letter to Mr. Robins.*

| Months<br>and<br>Days. | Hours. | Barom.<br>Alt.   | Therm<br>Alt.    | Lat. p.<br>Davis,<br>or Acf. | Lat. per<br>Elton. | Obf. | Long. | Need<br>Variat. | Obf. | Winds.   | Weather.                    |
|------------------------|--------|------------------|------------------|------------------------------|--------------------|------|-------|-----------------|------|----------|-----------------------------|
| 1731                   | 9      |                  |                  |                              |                    |      |       |                 |      | E N E.   |                             |
| June 14                | 12     | 30               | 26               | 59.17                        |                    |      | 54.52 | 17.30           |      | S E.     | Fair and Close.             |
|                        | 9      |                  |                  |                              |                    |      |       |                 |      | S E b E. | Dit.                        |
| 15                     | 9      | 32               | 25 $\frac{1}{2}$ |                              |                    |      |       |                 |      |          | Fair and Close.             |
|                        | 12     | 31               | 25 $\frac{1}{2}$ |                              | 59.24              | Obf. | 84.58 | 18.             |      | E S E.   | Dit.                        |
|                        | 9      | 32               | 24 $\frac{1}{2}$ |                              |                    |      |       |                 |      | Dit.     | Dit.                        |
| 16                     | 9      | 32               | 24 $\frac{1}{2}$ |                              |                    |      |       |                 |      | E S E.   | Dit.                        |
|                        | 12     | 32               | 24.3             | 59.30                        |                    |      | 11.50 | 19.             |      | Dit.     | Dit.                        |
|                        | 9      | 32               | 24 $\frac{1}{2}$ |                              |                    |      |       |                 |      | Dit.     | Dit.                        |
| 17                     | 9      | 31               | 24 $\frac{1}{2}$ |                              |                    |      |       |                 |      | S E b S. | Dit.                        |
|                        | 12     | 31               | 24 $\frac{1}{2}$ | 59.35                        |                    |      | 15.10 | 20.             |      | Dit.     | Dit. — at 2 small Rain.     |
|                        | 9      | 31 $\frac{1}{2}$ | 24               |                              |                    |      |       |                 |      | S-b W.   | Dit.                        |
| 18                     | 9      | 31               | 24               |                              |                    |      |       |                 |      | S W.     | Cloudy with small Mist.     |
|                        | 12     | 30               | 24               | 59.29                        |                    |      | 18.45 | 21.             |      | S W b S. | Foggy, with small Rain.     |
|                        | 9      | 29               | 23               |                              |                    |      |       |                 |      | N N W.   | Fair and clear, but cloudy. |
| 19                     | 9      | 31               | 25               |                              |                    |      |       |                 |      | Dit.     | Clear, with Clouds.         |
|                        | 12     | 31               | 25               | 58.54                        | 58.52              | Obf. | 21.15 | 21.30           |      | Dit.     | Hazy, with small Rain.      |
|                        | 6      | 30               | 24               |                              |                    |      |       |                 |      | N b E.   | Fair and Clear.             |
| 20                     | 9      | 30               | 24               | Acc.                         |                    |      |       |                 |      | S E.     | Clear, with small Rain.     |
|                        | 12     | 30               | 24 $\frac{1}{4}$ | 58.47                        | 58.55              | Obf. | 24.11 | 22.             |      | Dit.     | Fair and Cloudy.            |
|                        | 9      | 29               | 24 $\frac{1}{2}$ |                              |                    |      |       |                 |      | S E b S. | Foggy, fresh Gales & Rain.  |
| 21                     | 9      | 27               | 24 $\frac{1}{2}$ |                              |                    |      |       |                 |      | S E.     | Fresh Gales, with much Rain |
|                        | 12     | 26               | 24               | 58.47                        |                    |      | 29.13 | 24.             |      | Dit.     | Dit.                        |
|                        | 9      | 25               | 24               |                              |                    |      |       |                 |      | Dit.     | Little Wind and foggy.      |
| 22                     | 9      | 25               | 24               | Acc.                         |                    |      |       |                 |      | E S E.   | Dit. — with small Rain.     |
|                        | 12     | 24               | 23 $\frac{1}{2}$ | 58.42                        | 58.47              | Obf. | 32.54 | 26.             | Obf. | S E b E. | Foggy.                      |
|                        | 9      | 24               | 23 $\frac{1}{2}$ |                              |                    |      |       |                 |      | E S E.   | Dit.                        |
| 23                     | 9      | 26 $\frac{1}{2}$ | 25               |                              |                    |      |       |                 |      | N E b E. | Fresh Gales, hazy & misty.  |
|                        | 12     | 28               | 25               | 58.38                        |                    |      | 36.55 | 26.             |      | E N E.   | Dit.                        |
|                        | 9      | 30               | 26 $\frac{1}{4}$ |                              |                    |      |       |                 |      | Dit.     | Fresh Gales, with Clouds.   |
| 24                     | 9      | 30               | 26 $\frac{1}{4}$ |                              |                    |      |       |                 |      | E S E.   | Fair, with little Winds.    |
|                        | 12     | 29               | 25               | 58.37                        |                    | Obf. | 40.56 | 27.30           |      | Dit.     | Dit.                        |
|                        | 9      | 28               | 25 $\frac{1}{2}$ |                              |                    |      |       |                 |      | Dit.     | Dit.                        |
| 25                     | 9      | 28               | 25 $\frac{1}{4}$ |                              |                    |      |       |                 |      | E b S.   | Light Winds & fair Weather. |
|                        | 12     | 27               | 25               | 58.32                        |                    | Obf. | 43    | 30.             | Obf. | Dit.     | Fair and Clear.             |

| Months<br>and<br>Days. | Hours. | Barom.<br>Alt.   | Therm.<br>Alt.   | Lat. p.<br>Davis,<br>or A <sup>ct</sup> . | Lat. p.<br>Elton. | Obf. | Long. | Need.<br>Variat. | Obf. | Winds.   | Weather.                               |
|------------------------|--------|------------------|------------------|---|-------------------|------|-------|------------------|------|----------|--|
| June 25                | 9      | 28               | 25 $\frac{1}{4}$ |   |                   |      |       |                  |      | N N W.   | Cloudy.                                |
| 26                     | 9      | 32               | 28               |   |                   |      |       |                  |      | W N W.   | Clofe.                                 |
|                        | 12     | 34               | 29               | 57.39                                     |                   |      | 43.17 | 29               |      | W b N.   | Hazy.                                  |
|                        | 9      | 31               | 27               |   |                   |      |       |                  |      | S W.     | Fresh Gales & hazy                     |
| 27                     | 9      | 33               | 28               |   |                   |      |       |                  |      | N W.     | Foggy.                                 |
|                        | 12     | 33               | 28               | 58.6                                      |                   |      | 45.10 | 30               |      | N W b N. | Thick and foggy.                       |
|                        | 9      | 31               | 27               |   |                   |      |       |                  |      | S E.     | Hazy, with small Rain.                 |
| 28                     | 9      | 29               | 28               |   |                   |      |       |                  |      | S S E.   | Foggy, with much Rain.                 |
|                        | 12     | 29               | 29               | 58.18                                     |                   |      | 47.16 | 31               |      | S W.     | Hazy, with small Rain.                 |
|                        | 9      | 32 $\frac{1}{2}$ | 29 $\frac{1}{2}$ |   |                   |      |       |                  |      | W S W.   | Fresh Gales, with Fogs.                |
| 29                     | 9      | 33               | 29 $\frac{1}{2}$ |   |                   |      |       |                  |      | W S W.   | Little Wind, and hazy.                 |
|                        | 12     | 33               | 29               | 58.29                                     |                   |      | 47.41 | 31               |      | S W.     | Fair and clear ; some Rain.            |
|                        | 9      | 32 $\frac{1}{2}$ | 28 $\frac{1}{2}$ |   |                   |      |       |                  |      | S S W.   | Foggy and wet.                         |
| 30                     | 9      | 30               | 28 $\frac{1}{2}$ |   |                   |      | 51.16 | 33               |      | S b W.   | Squally.                               |
|                        | 12     | 29               | 28 $\frac{1}{2}$ | 58.53                                     |                   |      |       |                  |      | Dit.     | Fresh Gales, and hazy.                 |
|                        | 9      | 28               | 29 $\frac{1}{2}$ |   |                   |      |       |                  |      | S W.     | Fresh Gales, Fogs, and Rain.           |
| July 1                 | 9      | 27 $\frac{1}{2}$ | 30 $\frac{1}{2}$ |   |                   |      |       |                  |      | W b S.   | 2 $\frac{1}{2}$ D. above chang. stormy |
|                        | 12     | 31               | 30 $\frac{1}{2}$ | 59.49                                     |                   |      | 54.56 | 34               |      | West.    | —fell 1 D. below chang. mod.           |
|                        | 6      | 32               | 30 $\frac{1}{2}$ |   |                   |      |       |                  |      |          | —fell. Small Rain, & hazy.             |
| 2                      | 9      | 32               | 30               |   |                   |      |       |                  |      | Calm.    | Calm. Somewhat hazy.                   |
|                        | 12     | 32               | 28 $\frac{3}{4}$ | 60.16                                     | 60.16             | Obf. | 55.4  | 34               |      | Calm.    | —at a Stand, fair and calm.            |
|                        | 9      | 32 $\frac{1}{2}$ | 29               |   |                   |      |       |                  |      | Dit.     | —somew. fall. light, & clear.          |
| 3                      | 9      | 33               | 30               |   |                   |      |       |                  |      | North.   | Clofe and grey Weather.                |
|                        | 12     | 33 $\frac{1}{2}$ | 31               | 60.08                                     |                   |      | 56.22 | 34               |      | N b E.   | —contin. to fall, clear, & cold        |
|                        | 9      | 33               | 30 $\frac{1}{2}$ |   |                   |      |       |                  |      | North.   | —rising a little, fair & clear.        |
| 4                      | 9      | 31               | 29 $\frac{1}{2}$ |   |                   |      |       |                  |      | N N W.   | —rising, fair with fly. Clouds.        |
|                        | 12     | 30               | 29               | 59.33                                     | 59.33             | Obf. | 58.10 | 37               | Obf. | N W.     | —rising, lit. Wind, & fm. Rain         |
|                        | 9      | 29               | 28 $\frac{1}{2}$ |   |                   |      |       |                  |      | North.   | Clofe, lit. Winds & fly. Clouds.       |
| 5                      | 9      | 30               | 29               |   |                   |      |       |                  |      | N W b N. | Light Air, and variable.               |
|                        | 12     | 31               | 28 $\frac{1}{2}$ | 59.33                                     |                   |      | 58.28 | 37               |      | Calm.    | —fallen, fair and clear.               |
|                        | 9      | 31               | 28 $\frac{3}{4}$ |   |                   |      |       |                  |      | Dit.     | —at a stand, fair Weather.             |
| 6                      | 9      | 31               | 28 $\frac{1}{2}$ |   |                   |      |       |                  |      | N N W.   | —at a stand, clofe, & lit. Winds       |
|                        | 12     | 31               | 29               | 60.2                                      |                   |      | 58.40 | 37               |      | N N W    | —at a stand, little Winds.             |
|                        | 9      | 31               | 29               |   |                   |      |       |                  |      | N E.     | —at a stand, clofe, & cloudy.          |
| 7                      | 9      | 31 $\frac{1}{2}$ | 30 $\frac{1}{2}$ |   |                   |      |       |                  |      | N N E.   | —some. fall. clear w. Clouds.          |
|                        | 12     | 31               | 30               | 60.9                                      |                   |      | 60.22 | 37.40            |      | Calm.    | Clofe and grey Weather.                |
|                        | 9      | 30 $\frac{1}{2}$ | 29               |   |                   |      |       |                  | Obf. | S W.     | —rising, lit. Wind & hazy.             |
| 8                      | 9      | 31               | 29 $\frac{1}{2}$ |   |                   |      |       |                  |      | S E.     | Clofe and foggy.                       |
|                        | 12     | 31               | 30               | 60.29                                     | 60.30             | Obf. | 61.23 | 38               |      | N E.     | Dit.                                   |
|                        | 9      | 31               | 29               |   |                   |      |       |                  |      | W b N.   | Dit.                                   |
| 9                      | 9      | 34               | 34               |   |                   |      |       |                  |      | S W b S. | —fallen 4 Deg. clear & cold.           |
|                        | 12     | 34               | 33 $\frac{1}{2}$ | 61.16                                     | 61.19             | Obf. | 63.57 | 38               | Obf. | Dit.     | Fair, clear, much Ice in sight.        |
|                        | 9      | 33               | 32               |   |                   |      |       |                  |      |          | —rising, fair and clear.               |
| 10                     | 9      | 32               | 32               | Acc.                                      |                   |      |       |                  |      | E S E.   | —rising, fair and clear.               |
|                        | 12     | 32               | 32               | 61.35                                     | 61.25             | Obf. | 65.17 | 40               |      | Dit.     | —at a stand, fair and clear.           |

| Months<br>and<br>Days. | Hours. | Barom.<br>Alt. | Therm<br>Alt. | Lat. p.<br>Davis,<br>or Acc. | Lat. p.<br>Elton. | Obf. | Long. | Variat. | Obf. | Winds.   | Weather.                       |
|------------------------|--------|----------------|---------------|------------------------------|-------------------|------|-------|---------|------|----------|--------------------------------|
| July 10                | 9      | 32             | 32            |                              |                   |      |       |         |      |          | stands, fresh Gale.            |
| 11                     | 9      | 34             | 33            | Acc.                         |                   |      |       |         |      | S E b S. | —fallen, fresh G. with Squalls |
| 12                     | 9      | 34             | 33            | 62                           | 62.4              | Obf. | 69.2  | 41      |      | S E b S. | —at a stand, fresh Gales.      |
|                        | 9      | 34             | 33            |                              |                   |      |       |         |      | Dit.     | —at a stand, hazy.             |
| 12                     | 9      | 37             | 32            |                              |                   |      |       |         |      | Dit.     | —fallen, fair.                 |
| 12                     | 9      | 36             | 30            |                              | 62.33             | Obf. | 71.2  | 43      |      | W S W.   | —somewhat rising, fair.        |
|                        | 9      | 35             | 30            |                              |                   |      |       |         |      | Dit.     | —rising, little Winds, & fair. |
| 13                     | 9      | 35             | 29            | Acc.                         |                   |      |       |         |      | Dit.     | —at a stand, fair with Calm.   |
| 12                     | 9      | 35             | 30            | 62.46                        | 62.40             | Obf. | 72.5  | 43      |      | N W.     | Fair and moderate.             |
|                        | 9      | 35             | 30            |                              |                   |      |       |         |      | N W.     | Fair and clear.                |
| 14                     | 9      | 35             | 32            |                              |                   |      |       |         |      | Dit.     | —at a stand, fair and clear.   |
| 12                     | 9      | 35             | 32            | 62.30                        |                   | Obf. | 73.33 | 41      |      | North.   | —at a stand, fair and clear.   |
|                        | 9      | 35             | 32            |                              |                   |      |       |         |      | N W b N. | Fair, serene Weather.          |
| 15                     | 9      | 34             | 32            | Acc.                         |                   |      |       |         |      | South.   | —somewhat fallen, foggy.       |
| 12                     | 9      | 35             | 33            | 63.13                        | 63.14             | Obf. | 75.9  | 41      |      | S b E.   | Very foggy.                    |
|                        | 9      | 35             | 33            |                              |                   |      |       |         |      | S E.     | —at a stand, foggy.            |
| 16                     | 9      | 35             | 33            | Acc.                         |                   |      |       |         |      | N W.     | —at a stand, fair and clear.   |
| 12                     | 9      | 35             | 32            | 63.21                        | 62.58             | Obf. | 77.3  | 42      |      | N N W.   | Fair, serene Weather.          |
|                        | 9      | 35             | 31            |                              |                   |      |       |         |      | Dit.     | —falling, clear.               |
| 17                     | 9      | 34             | 31            |                              |                   |      |       |         |      | N W.     | —rising, clear.                |
| 12                     | 9      | 33             | 30            | 63.17                        |                   |      | 78.29 | 41      |      | Dit.     | —continues rising, clear.      |
|                        | 9      | 33             | 30            |                              |                   |      |       |         |      | North.   | —rising, serene Weather.       |
| 18                     | 9      | 33             | 31            | Acc.                         |                   |      |       |         |      | N W.     | Foggy.                         |
| 12                     | 9      | 34             | 31            | 63.9                         | 63.6              | Obf. | 79.53 | 40      |      | Dit.     | —a little fallen, thick Fog.   |
|                        | 9      | 34             | 31            |                              |                   |      |       |         |      | South.   | —at a stand, hazy.             |
| 19                     | 9      | 33             | 31            |                              |                   |      |       |         |      | East.    | —rising, fresh Gale.           |
| 12                     | 9      | 33             | 30            | 62.14                        |                   | Obf. | 80.44 |         |      | E b N.   | —contin. rising fair, & clear. |
|                        | 9      | 30             | 29            |                              |                   |      |       |         |      | Dit.     | —continues rising, serene.     |
| 20                     | 9      | 28             | 27            |                              |                   |      |       |         |      | West.    | —rising, grey close Weather.   |
| 12                     | 9      | 28             | 26            | 61.18                        |                   |      | 81.26 | 37      |      | Dit.     | —stands, fresh Gales, & foggy. |
|                        | 9      | 30             | 29            |                              |                   |      |       |         |      | N W.     | —fallen, hazy.                 |
| 21                     | 9      | 32             | 30            |                              |                   |      |       |         |      | North.   | —falls, fair, and clear.       |
| 12                     | 9      | 32             | 29            | 60.5                         |                   | Obf. | 83.2  | 34      |      | N W.     | —stands, fresh Gales, & fair.  |
|                        | 9      | 32             | 29            |                              |                   |      |       |         |      | Dit.     | —at a stand, squally.          |
| 22                     | 9      | 34             | 31            |                              |                   |      |       |         |      | N W.     | —fallen, moderate, and fair.   |
| 12                     | 9      | 34             | 31            | 58.4                         |                   | Obf. | 84.20 | 30      |      | West.    | —at a stand, fair.             |
|                        | 9      | 33             | 31            |                              |                   |      |       |         |      | W S W.   | —rises, dark and cloudy.       |
| 23                     | 9      | 32             | 31            |                              |                   |      |       |         |      | W b N.   | —rising, dirty and Rain.       |
| 12                     | 9      | 32             | 31            | 57.35                        |                   |      | 84.20 | 29      |      | W b S.   | —stands, foggy, & small Rain.  |
|                        | 9      | 33             | 32            |                              |                   |      |       |         |      | N W.     | —fallen, fresh breeze & cold.  |
| 24                     | 9      | 37             | 34            | Acc.                         |                   |      |       |         |      | N W.     | —fallen 4 Deg. inclos. w. Ice  |
| 12                     | 9      | 37             | 33            | 56.13                        | 56.20             | Obf. | 85.27 | 25      |      | West.    | —stands, foggy and much Ice    |
|                        | 9      | 36             | 32            |                              |                   |      |       |         |      | Calm.    | —rising, serene.               |
| 25                     | 9      | 36             | 32            | Acc.                         |                   |      |       |         |      | S S E.   | —rising, hazy.                 |
| 12                     | 9      | 35             | 31            | 56.24                        | 56.24             | Obf. | 85.27 | 24      |      | East.    | —continues rising, fair.       |
|                        | 9      | 35             | 32            |                              |                   |      |       |         |      | S E b E. | —stands, hazy, and cold Air.   |
|                        | 9      | 35             | 33            |                              |                   |      |       |         |      | S S E.   | —somew. fall. hazy, & cold.    |

| Months<br>and<br>Days. | Hours. | Barom.<br>Alt.   | Therm<br>Alt.    | Lat. per<br>Accur. | per Da-<br>vis. | per El-<br>ton. | Long. | Variat. | Obf. | Winds.   | Weather.                       |
|------------------------|--------|------------------|------------------|--------------------|-----------------|-----------------|-------|---------|------|----------|--------------------------------|
| July 26                | 12     | 36               | 33 $\frac{1}{2}$ | 55.39              |                 | 55.33           | 85.40 | 24      |      | N b E.   | g falling, Rain, & fresh Gales |
|                        | 9      | 36               | 34               |                    |                 |                 |       |         |      | N N W.   | —stands, thick and rainy.      |
| 27                     | 9      | 37               | 35               |                    |                 |                 |       |         |      | E N E.   | —contin. falling, fair & cold. |
|                        | 12     | 37               | 34 $\frac{1}{2}$ | 54.23              |                 |                 | 85.48 | 24      |      | E b N.   | —stands, cold, & much Ice.     |
|                        | 9      | 37               | 35               |                    |                 |                 |       |         |      | N b E.   | —as above, fresh Gale, cold.   |
| 28                     | 9      | 37               | 34 $\frac{3}{4}$ |                    |                 |                 |       |         |      | N b W.   | —as above, moder. & hazy.      |
|                        | 12     | 37               | 34 $\frac{1}{2}$ | 53.57              |                 |                 |       | 24      |      | N N W.   | —stands, moderate & fair.      |
|                        | 9      | 35               | 30               |                    |                 |                 |       |         |      | S W.     | —rising, fair, pleas. Weather. |
| 29                     | 9      | 35               | 30 $\frac{1}{2}$ |                    |                 |                 |       |         |      | S W b W. | —at a stand, cloudy w. Rain.   |
|                        | 12     | 34               | 31               | 53.29              |                 |                 |       | 25      |      | S W.     | —rising, Thunder and Rain.     |
|                        | 9      | 33               | 31               |                    |                 |                 |       |         |      |          | —rising, fresh Gales w. Rain.  |
| 30                     | 9      | 37               | 32               |                    |                 |                 |       |         |      | N N W.   | —much fallen, moderate.        |
|                        | 12     | 36               | 29               |                    |                 |                 |       |         |      |          | —rising, fair and moderate.    |
|                        | 9      | 35               | 29 $\frac{1}{3}$ |                    |                 |                 |       |         |      |          | —contin. rising, fair, & sett. |
| 31                     | 9      | 31               | 27               |                    |                 |                 |       |         |      |          | —rising, squally, with Rain.   |
|                        | 12     | 31               | 27               |                    |                 |                 |       |         |      |          | —as above, fair and moderate.  |
|                        | 9      | 29               | 25               |                    |                 |                 |       |         |      |          | —rising quick, fair.           |
| Aug. 1                 | 9      | 26               | 22               |                    |                 |                 |       |         |      |          | —contin. rising, warm & fair.  |
| Aug. 20                | 9      | 30               | 35               |                    |                 |                 |       |         |      | W N W.   | Hazy and moderate.             |
|                        | 12     | 33               | 27               | 52.40              |                 | 52.42           |       |         | Obf. | N N W.   | g stands, hazy.                |
|                        | 9      | 35               | 30               |                    |                 |                 |       |         |      | Dit.     | —stands, fresh Gales.          |
| 21                     | 9      | 36 $\frac{1}{2}$ | 30               |                    |                 |                 |       |         |      | North.   | —somewhat fallen, fair.        |
|                        | 12     | 37               | 31 $\frac{1}{2}$ | 52.54              | 52.55           |                 |       |         | Obf. | North.   | —fallen.                       |
|                        | 9      | 37               | 30 $\frac{1}{2}$ |                    |                 |                 |       |         |      | Dit.     | —falls, clear, serene, & cold. |
| 22                     | 9      | 36               | 28               |                    |                 |                 |       |         |      | S W b W. | —rises, fair light Breezes.    |
|                        | 12     | 36               | 29               | 52.57              | 52.59           |                 |       |         | Obf. | Dit.     | —stands, clear, and calm.      |
|                        | 9      | 35               | 29               |                    |                 |                 |       |         |      |          | —somewhat risen, calm.         |
| 23                     | 9      | 34 $\frac{1}{2}$ | 29               |                    |                 |                 |       |         |      | S S E.   | —rises, hazy.                  |
|                        | 12     | 34               | 29               | 53.54              |                 |                 |       |         |      | Dit.     | —contin. rising, fresh Gales.  |
|                        | 9      | 33               | 30               |                    |                 |                 |       |         |      | S b W.   | —rising, hazy, drops of Ra.    |
| 24                     | 9      | 32               | 28 $\frac{1}{2}$ |                    |                 |                 |       |         |      | S E.     | Fair and moderate.             |
|                        | 12     | 32               | 29               | 55.16              |                 |                 |       | 25      |      | S E.     | Hazy.                          |
|                        | 9      | 33               | 30               |                    |                 |                 |       |         |      | N E.     | Hazy and close                 |
| 25                     | 9      | 34               | 30 $\frac{1}{2}$ |                    |                 |                 |       |         |      | N N E.   | g falls, foggy, and cold.      |
|                        | 12     | 35               | 31               | 55.48              |                 |                 |       | 26      |      | Dit.     | —continues fallen, cold.       |
|                        | 9      | 34               | 31               |                    |                 |                 |       |         |      | Dit.     | —little rising.                |
| 26                     | 9      | 36               | 33               |                    |                 |                 |       |         |      | E S E.   | —fallen, moderate, and fair.   |
|                        | 12     | 36               | 33               | 56.55              | 56.56           | 56.56           |       | 28      | Obf. | Dit.     | —stands, fresh Gales.          |
|                        | 9      | 37               | 34               |                    |                 |                 |       |         |      | E b N.   | Hard Gales                     |
| 27                     | 9      | 40               | 34               |                    |                 |                 |       |         |      | E N E.   | —fallen, fresh Gales.          |
|                        | 12     | 40               | 34               | 58.14              | 58.13           |                 |       | 29      | Obf. | Dit.     | Hard Gales.                    |
|                        | 9      | 40               | 34               |                    |                 |                 |       |         |      | E N E.   | —stands, moderate.             |
| 28                     | 9      | 38               | 33               |                    |                 |                 |       |         |      | N N E.   | —somewhat risen, fair.         |
|                        | 12     | 38               | 32               | 58.35              | 58.41           |                 |       | 30      | Obf. | North.   | —stands, fair and moderate.    |

Aug.

| Months<br>and<br>Days. | Hours | Barom.<br>Alt.   | Therm<br>Alt.    | Lat.<br>Acc. | Lat. p.<br>Davis. | per<br>Elton. | Long. | Variat. | Obf. | Winds.   | Weather.                       |
|------------------------|-------|------------------|------------------|--------------|-------------------|---------------|-------|---------|------|----------|--------------------------------|
| Aug. 28                | 9     | 38               | 32               |              |                   |               |       |         |      | North.   | Fair and calm.                 |
|                        | 12    | 37               | 31               |              |                   |               |       |         |      | Dit.     | Fair and clear.                |
| 29                     | 9     | 37               | 30               | 59.24        | 59.33             |               |       | 31      | Obf. | N b W.   | ☽ little risen, fair.          |
|                        | 12    | 36               | 30               |              |                   |               |       |         |      | West.    | —stands, fair Weather.         |
| 30                     | 9     | 36               | 31               |              |                   |               |       |         |      | Calm.    | —stands, variable.             |
|                        | 12    | 37               | 30               | 59.55        | 60.5              |               |       | 31      | Obf. | E S E.   | —somewhat fallen.              |
|                        | 9     | 37               | 30               |              |                   |               |       |         |      | E b N.   | —stands, squally.              |
| 31                     | 9     | 39               | 35               |              |                   |               |       |         |      | E N E.   | —fallen, fresh Gales.          |
|                        | 12    | 40               | 37               | 59.55        |                   |               |       | 32      |      | Dit.     | —cont. fallen, fr. Ga. & clou. |
|                        | 9     | 40               | 37               |              |                   |               |       |         |      | Dit.     | —stands, squally.              |
| Sept. 1.               | 9     | 40               | 36               |              |                   |               |       |         |      | N E.     | —stands, great Sea.            |
|                        | 12    | 40               | 36 $\frac{1}{2}$ | 59.25        |                   |               |       | 31      |      | Dit.     |                                |
|                        | 9     | 41               | 36               |              |                   |               |       |         |      |          |                                |
| 2                      | 9     | 42               | 36 $\frac{1}{2}$ |              |                   |               |       |         |      | E N E.   | —fallen, flying Clouds.        |
|                        | 12    | 43               | 36 $\frac{1}{2}$ | 59.43        | 59.36             |               |       | 32      | Obf. | Dit.     | —contin. falling, moderate.    |
|                        | 9     | 42               | 34               |              |                   |               |       |         |      | N N W.   | Moderate.                      |
| 3                      | 9     | 41               | 35               |              |                   |               |       |         |      | S W.     | —rising, fresh Gales.          |
|                        | 12    | 40               | 35 $\frac{1}{2}$ | 60.40        |                   |               |       | 33      |      | Dit.     | —contin. rising, hard Gales.   |
|                        | 9     | 35               | 35               |              |                   |               |       |         |      | Dit.     | —rising fast, very hard Gales. |
| 4                      | 9     | 32 $\frac{1}{2}$ | 32 $\frac{1}{2}$ |              |                   |               |       |         |      | Dit.     | —still rising, blow. ver. hard |
|                        | 12    | 31               | 33               | 61.33        |                   |               |       | 35      |      | Dit.     | —continues rising, foggy.      |
|                        | 9     | 30               | 33               |              |                   |               |       |         |      | W S W.   | Thick Fog.                     |
| 5                      | 9     | 34               | 33               |              |                   |               |       |         |      | N b E.   | ☽ fallen, fresh Gales.         |
|                        | 12    | 37               | 35               | 62.12        |                   |               |       | 38      |      | Dit.     | Fresh Gales.                   |
|                        | 9     | 38               | 35 $\frac{1}{2}$ |              |                   |               |       |         |      | Dit.     | —continues fallen, moder.      |
| 6                      | 9     | 42               | 37               |              |                   |               |       |         |      | N E b N. | —stands, hazy, Snow.           |
|                        | 12    | 42               | 36 $\frac{1}{2}$ | 62.37        | 62.49             |               |       | 42      | Obf. | Dit.     | —stands, thick Weather.        |
|                        | 9     | 42               | 36 $\frac{1}{2}$ |              |                   |               |       |         |      | S E.     | —the same.                     |
| 7                      | 9     | 42               | 37               |              |                   |               |       |         |      |          | Cont. hazy, w. Ledges of Ice.  |
|                        | 12    | 42               | 37               | 63.10        | 63.21             |               |       | 42      | Obf. | S E.     | Dit.                           |
|                        | 9     | 42               | 36 $\frac{1}{2}$ |              |                   |               |       |         |      | Dit.     | The same, Fogs and Freez.      |
| 8                      | 9     | 41               | 36               |              |                   |               |       |         |      | E S E.   | ☽ somewhat risen, foggy.       |
|                        | 12    | 41               | 35 $\frac{1}{2}$ | 63.25        |                   |               |       | 41      |      | Dit.     | —stands.                       |
|                        | 9     | 41               | 35               |              |                   |               |       |         |      | Dit.     | —the same, fair.               |
| 9                      | 9     | 41               | 35               |              |                   |               |       |         |      | Calm.    | —the same.                     |
|                        | 12    | 40               | 34 $\frac{1}{2}$ | 63.19        | 63.13             |               |       | 40      | Obf. | N W b W. | —somew. risen, fair.           |
|                        | 9     | 41               | 35 $\frac{1}{2}$ |              |                   |               |       |         |      | Dit.     | —fallen, fair.                 |
| 10                     | 9     | 42               | 37               |              |                   |               |       |         |      | N b W.   | —continues fallen, fair.       |
|                        | 12    | 42               | 38               | 62.48        | 62.30             |               |       | 41      | Obf. | Dit.     | —the same.                     |
|                        | 9     | 43               | 38               |              |                   |               |       |         |      | Dit.     | —fallen, fair.                 |
| 11                     | 9     | 44               | 38               |              |                   |               |       |         |      | Dit.     | —fallen, fair.                 |
|                        | 12    | 45               | 38 $\frac{1}{2}$ | 61.43        |                   |               |       | 40      |      | Dit.     | —contin. fallen, fair & cold.  |
|                        | 9     | 45               | 38               |              |                   |               |       |         |      | North.   | —at a stand, fair.             |
| 12                     | 9     | 44               | 37 $\frac{1}{2}$ |              |                   |               |       |         |      | W N W.   | —risen, fair.                  |
|                        | 12    | 42               | 36 $\frac{1}{2}$ | 61.31        | 61.29             |               |       | 40      | Obf. | West.    | —risen, hazy w. much Ice.      |
|                        | 9     | 41               | 36               |              |                   |               |       |         |      | Dit.     | —rising, fair and clear.       |

| Months<br>and<br>Days. | Hours. | Barom.<br>Alt.   | Therm.<br>Alt.   | Lat.<br>A <sup>st</sup> . | Lat p.<br>Davis. | Lat. p.<br>Elton. | Long. | Need.<br>Variat. | Obs. | Winds.   | Weather                        |
|------------------------|--------|------------------|------------------|---------------------------|------------------|-------------------|-------|------------------|------|----------|--------------------------------|
| Aug. 13                | 9      | 40 $\frac{1}{2}$ | 36               |                           |                  |                   |       |                  |      | N W.     | Fair.                          |
|                        | 12     | 40               | 36               | 61.16                     | 61.5             |                   | 60.18 | 38               | Obs. | Dit.     | Fair and moderate.             |
|                        | 9      | 40               | 36               |                           |                  |                   |       |                  |      |          | of the same, cloudy.           |
| 14                     | 9      | 40               | 35 $\frac{1}{2}$ |                           |                  |                   |       |                  |      | N W.     | —the same, fair.               |
|                        | 12     | 39               | 35               | 60.36                     |                  |                   | 57.12 | 38               |      | Dit.     | Fair and cloudy.               |
|                        | 9      | 38               | 35               |                           |                  |                   |       |                  |      | N W b N. | —rising, hazy, with Snow.      |
| 15                     | 9      | 37               | 35 $\frac{1}{2}$ |                           |                  |                   |       |                  |      | N N E.   | —risen, foggy.                 |
|                        | 12     | 37 $\frac{1}{2}$ | 36               | 59.41                     | 59.28            |                   | 52.29 | 35               | Obs. | Dit.     | Fair.                          |
|                        | 9      | 37 $\frac{1}{2}$ | 35               |                           |                  |                   |       |                  |      | N W.     |                                |
| 16                     | 9      | 37 $\frac{1}{2}$ | 34 $\frac{1}{2}$ |                           |                  |                   |       |                  |      | West.    | —stands, cloudy.               |
|                        | 12     | 37 $\frac{1}{2}$ | 33 $\frac{1}{2}$ | 58.20                     | 58.10            |                   | 47.18 | 33               | Obs. | N W b W. | —the same, cloudy.             |
|                        | 9      | 37 $\frac{1}{2}$ | 33 $\frac{1}{2}$ |                           |                  |                   |       |                  |      |          | —stands, variable.             |
| 17                     | 9      | 37               | 33               |                           |                  |                   |       |                  |      | N N W.   | —the same, cloudy.             |
|                        | 12     | 37 $\frac{1}{2}$ | 33 $\frac{1}{2}$ | 57.15                     |                  |                   | 43.44 | 29               |      | Dit.     | —somew. fallen, cloudy.        |
|                        | 9      | 37 $\frac{1}{2}$ | 33               |                           |                  |                   |       |                  |      | Dit.     | Calm.                          |
| 18                     | 9      | 27               | 28 $\frac{1}{2}$ |                           |                  |                   |       |                  |      | S W.     | —rising quick, fresh Gales.    |
|                        | 12     | 26               | 28 $\frac{1}{2}$ | 56.35                     | 56.25            |                   | 42.32 | 27               | Obs. | Dit.     | —little rising, cloudy.        |
|                        | 9      | 26               | 28 $\frac{1}{2}$ |                           |                  |                   |       |                  |      | West.    | —stands, squall. with Rain.    |
| 19                     | 9      | 34               | 29               |                           |                  |                   |       |                  |      | N W.     | Clear, with fresh Gales.       |
|                        | 12     | 35               | 30               | 55.23                     | 55.29            |                   | 38.48 | 25               | Obs. | Dit.     | —still falling, fair.          |
|                        | 9      | 35               | 31               |                           |                  |                   |       |                  |      | Dit.     | —stands, fair, squally.        |
| 20                     | 9      | 34               | 30 $\frac{1}{2}$ |                           |                  |                   |       |                  |      | W N W.   | —rising, squally with Hail.    |
|                        | 12     | 33 $\frac{1}{2}$ | 31               | 54.23                     |                  |                   | 34.19 | 22               |      | Dit.     | Hard Squalls.                  |
|                        | 9      | 33 $\frac{1}{2}$ | 31               |                           |                  |                   |       |                  |      |          | —at a stand, hard Squalls.     |
| 21                     | 9      | 33               | 30               |                           |                  |                   |       |                  |      | N W.     | Squally with fresh Gales.      |
|                        | 12     | 33               | 29 $\frac{1}{2}$ | 53.9                      |                  |                   | 29.51 | 20               |      | Dit.     | —stands, clear fresh Gales.    |
|                        | 9      | 34               | 29               |                           |                  |                   |       |                  |      | Dit.     | —somewhat fallen.              |
| 22                     | 9      | 34               | 28 $\frac{1}{2}$ |                           |                  |                   |       |                  |      | N b W.   | —stands, fair.                 |
|                        | 12     | 35               | 28               | 52.7                      | 52.14            |                   | 26.25 | 19               | Obs. | N W b W. | —fallen, clear.                |
|                        | 9      | 30               | 25               |                           |                  |                   |       |                  |      | S W.     | —rising quick, cloudy.         |
| 23                     | 9      | 28               | 25               |                           |                  |                   |       |                  |      | S b E.   | —still rising, hard Gales.     |
|                        | 12     | 24               | 24               |                           |                  |                   |       |                  |      | Dit.     | —rising quick, thick & dirty   |
|                        | 9      | 21               | 21               |                           |                  |                   |       |                  |      |          | —continues rising.             |
| 24                     | 9      | 22               | 22               |                           |                  |                   |       |                  |      | East.    | —stands, cloudy and Rain.      |
|                        | 12     | 22 $\frac{1}{2}$ | 22 $\frac{1}{2}$ | 52.30                     |                  |                   | 23.12 | 17               |      | Dit.     | —fresh Gales.                  |
|                        | 9      | 22 $\frac{1}{2}$ | 22 $\frac{1}{2}$ |                           |                  |                   |       |                  |      | Dit.     | —at a stand, cloudy.           |
| 25                     | 9      | 21 $\frac{1}{2}$ | 22               |                           |                  |                   |       |                  |      | South.   | —rising, squally and Rain.     |
|                        | 12     | 21 $\frac{1}{2}$ | 22               | 51.50                     | 51.54            |                   | 20.24 | 16               | Obs. | Dit.     | —the same, fresh Gales.        |
|                        | 9      | 21               | 22               |                           |                  |                   |       |                  |      | W S W.   | —the same, squally w. Rain.    |
| 26                     | 9      | 21               | 21 $\frac{1}{2}$ |                           |                  |                   |       |                  |      | S W.     | Fair, fresh Breeze.            |
|                        | 12     | 21               | 21 $\frac{1}{2}$ | 50.38                     | 50.46            |                   | 17.12 | 16               | Obs. | S b W.   | Fair and clear.                |
|                        | 9      | 21               | 21               |                           |                  |                   |       |                  |      | Dit.     | —the same, fresh Gales.        |
| 27                     | 9      | 22               | 21               |                           |                  |                   |       |                  |      | West.    | —lit. fallen, fair and cloudy. |
|                        | 12     | 23               | 20 $\frac{1}{2}$ | 49.28                     | 49.28            |                   | 13.26 | 15               | Obs. | Dit.     | Fair.                          |
|                        | 9      | 22               | 20               |                           |                  |                   |       |                  |      | S W.     | A great Sea, squally.          |



| Months<br>and<br>Days. | Hours. | Barom.<br>Alt. | Therm.<br>Alt. | Lat.<br>Ac <sup>t</sup> . | Lat. <i>p</i> .<br><i>Davis</i> . | Lat. <i>p</i> .<br><i>Elton</i> . | Long. | Need.<br>Variat. | Obs. | Winds.   | Weather.                      |
|------------------------|--------|----------------|----------------|---------------------------|-----------------------------------|-----------------------------------|-------|------------------|------|----------|-------------------------------|
| Aug. 28                | 9      | 20             | 19             |                           |                                   |                                   |       |                  |      | S W.     | g rising, fresh Gales & Rain. |
|                        | 12     | 19             | 18             | 49.15                     | 49.2                              |                                   | 9.21  | 14               | Obs. | Dit.     | —contin. rising, fresh Gales. |
|                        | 9      | 21             | 18½            |                           |                                   |                                   |       |                  |      | W S W.   | —little fallen, fair Weather. |
| 29                     | 9      | 23             | 18½            |                           |                                   |                                   |       |                  |      | S b W.   | —fallen, hazy, fresh Gales.   |
|                        | 12     | 22             | 18             | 49.32                     |                                   |                                   | 5.18  | 14               |      | Dit.     |                               |
|                        | 9      | 22             | 18             |                           |                                   |                                   |       |                  |      | S W b S. | —at a stand, fresh Gales.     |
| 30                     | 9      | 22             | 18             |                           |                                   |                                   |       |                  |      | Dit.     | —the same, hazy.              |
|                        | 12     | 22             | 18             | 49.18                     | 49.30                             |                                   |       | 14               | Obs. | S W.     | —at a stand, hazy.            |
|                        | 9      | 22             | 18             |                           |                                   |                                   |       |                  |      |          | —contin. the same, squally.   |
| Oct. 1.                | 9      | 24             | 17             |                           |                                   |                                   |       |                  |      | West.    | —fallen, fair and clear.      |
|                        | 12     | 26             | 19             | 50.2                      |                                   |                                   |       | 14               |      | W S W.   | —continues fallen, fair.      |
|                        | 9      | 28             | 21             |                           |                                   |                                   |       |                  |      | Dit.     | —fallen, fair and clear.      |
| 2                      | 9      | 29             | 21             |                           |                                   |                                   |       |                  |      | Dit.     |                               |
|                        | 12     | 29             | 21             |                           |                                   |                                   |       |                  |      | Dit.     | —continues, pleasant.         |
|                        | 9      | 30             | 22             |                           |                                   |                                   |       |                  |      | Dit.     | —the same, fair and clear.    |

January 28, 173½.

S I R,

THESE will inform you of my Sentiments concerning Mr. *Patrick's* Marine-Barometer, which I have made use of for two Voyages to *Hudson's-Bay* in North America, and by the strictest Observations, I have always found it to give me timely Notice of all bad Weather, and likewise of veerable Winds; as also, certain Intelligence of our coming nigh any Ice, with the Quantity we had to go through. It is an Instrument of excellent Use, I having continually found myself obliged to conform to its more certain Information before all other ocular Appearances in the Horizon whatever. I must likewise inform you, that when we come in or near Ice we are obliged to keep one of our Compasses continually moving, there being either some magnetick Particles in the Air, or some other Quality that hinders them from traversing, which makes our Course very difficult to direct; this happens generally in our entering *Hudson's-Streights* and Bay, but never so without being near or amongst Ice. I have enquired of the Commanders, and others that use *Greenland* and *Davis's-Streights*, and find great Complaints from them of their Compasses not traversing. I have tried the Needle of the Azimuth Compass without the Chart, and find it to traverse much better, so that I design next Voyage to have iceing-glass Charts, as being lighter. I submit the Consideration of these Things to yourself and the Learned, and remain,

S I R,

Your most Humble Servant,

Christopher Middleton.

To Mr. Benj. Robins.